BMPs for Businesses

An environmental best management practice (BMP) is an action or combination of actions implemented to reduce the environmental impacts of business operations. There are two types of pollution prevention: source reduction and recycling. Source reduction reduces or eliminates the generation of waste. Recycling takes used materials, modifies their form, and makes them available for future reuse. The BMPs provided in the fact sheets listed above are a combination of source reduction and recycling strategies, which provide economic as well as environmental and safety benefits.

Each BMP fact sheet focuses on a particular sector, and draws information from several sources, which are listed in the endnotes section of each fact sheet. The BMPs listed in each fact sheet may be used as a guide for your business. Depending on your business' individual needs and technical and financial capacities, the BMPs may require modification. When adapting a BMP to your business, it may be necessary to contact your local regulatory agency to determine permit requirements. It is important to note that the BMPs listed in these fact sheets are intended as a starting point for your business' environmental management plan, and are not all-inclusive. Further, information is available through links at the end of each fact sheet. For additional information about regional specific BMPs, or BMPs not covered in these fact sheets, contact The City of Pleasanton Source Control Inspector at (925) 931-5500. It is not expected that each BMP will work in all situations; each small business must factor in their own needs, resources, and capacities to find the ones that work best for them.

Below is a list of BMPs that are available, please check to see which you might be able to utilize to help keep both your establishment and your watershed as clean as possible.

Starting a new business

General Good Housekeeping

Self Inspection for Businesses

Building Maintenance - Light Construction

Grocery Stores

Pool and Spa Maintenance

Restaurants have a high potential for introducing pollutants into the storm drainage system. With a high turnover rate of employees it is very important for management staff and owners to ensure that their staff is properly trained in the BMPs for the food industry.

Mobil Cleaners have certain requirements for there discharge wasters, please check the following matrixes for proper handling, Restaurant Matrix, General Matrix

Fluorescent Lamps contain small amounts of mercury, are you aware of the proper way of handling and disposing of you spent bulbs.

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Starting a New Business?

As a new business, it is important to consider the potential impact of your activities on local creeks and San Francisco Bay. Pollutants discharged to local creeks, lakes, and San Francisco Bay during storms or through illegal dumping significantly contribute to water pollution, and harm aquatic life. In response to Federal and State regulations and requirements, municipalities in Alameda County have joined to form the Alameda Countywide Clean Water Program (ACCWP). In addition to reviewing their own practices, municipalities in Alameda County have launched a public education campaign and inspection program. Inspectors work with new and existing businesses to identify and control potential discharge of pollutants to the storm drain system.

All businesses can implement common-sense Best Management Practices (BMPs) to reduce or eliminate their contribution to stormwater pollution. Most BMPs involve modest changes to routine operations and maintenances practices *Implementing BMPs can save you time and money by preventing potential violations.* The information on the reverse side of this page identifies some activities which contribute to stormwater runoff pollution as well as appropriate BMPs to control or eliminate these discharges.

A particular concern for new businesses is that all drains be properly plumbed. In general, only rain is allowed in the storm drains. If possible, proper disposal of wastewater should be considered before buying or leasing a site, to avoid expensive re-plumbing. Most wastewaters must discharge to the sanitary sewer system. If you don't know where a drain discharges, contact your local building department or wastewater treatment agency staff for help. Your local stormwater program representative and wastewater treatment agency can help you determine where the drain should discharge. They can also help you find out how to redirect the discharge if it needs to be changed.

For more information, call the Urban Runoff Division (925) 931-5500.

Best Management Practices

You can control pollutant discharges to the storm drain by implementing common sense housekeeping measures also called Best Management Practices (BMPs). The objectives are to 1) keep pollutants from contacting rain, and 2) keep pollutants from being dumped or poured into the storm drains. The goal is "only rain in the storm drain."

Will your business store any raw materials? Generate waste materials or wastewater? Use or maintain vehicles? Use or maintain equipment outside? Transfer any liquids to containers transported to or from your site? Carry out any remodeling activities to your site? Or do any washing activity outdoors? If the answer to any one of these questions is yes, you need to consider the first group of BMPs listed below. You will also need to consider the second group of BMPs during normal business activities when your business is operational.

BEFORE YOU LEASE OR BUY, consider the following:

- ✓ Is a sanitary hookup readily available? Will an onsite treatment system be required by the local wastewater treatment agency prior to discharge to the sanitary sewer?
- ✓ If equipment or vehicles need to be cleaned, is a washpad or enclosed area that is plumbed to the sanitary sewer available?
- ✓ Is there sufficient room inside buildings for storage of raw materials, waste materials, equipment or parts? Are other methods readily available for protecting from rain materials that must be kept outdoors?
- ✓ Are the material transfer areas (for example, loading docks, receiving areas, etc.) covered or protecting from rain? Will you need to protect storm drains in these areas in case of a spill?

DURING NORMAL BUSINESS ACTIVITIES, implement the following BMPs:

- ✓ Store all materials under cover protected from rain, runoff, and wind.
- ✓ Keep all storage containers free from cracks and leaks.
- ✓ Keep all work areas clean and free from debris.
- ✓ Establish a Spill Clean Up Plan for liquid and solid materials; use dry cleaning methods rather that pressure washing materials to the storm drains.
- ✓ Handle all materials carefully to avoid spills.
- ✓ All wastewater from manufacturing, cleaning, and washing must be either contained and recycled or disposed to the sanitary sewer. The wastewater may have to be treated to remove pollutants prior to discharge to the sanitary sewer. Contact your local wastewater treatment agency for their requirements.
- ✓ Wash equipement/vehicles in a designated and/or covered area where wash water is collected for recycling or for discharging to the sanitary sewer. Contact your local wastewater treatment agency.
- ✓ Dispose of all wastes properly. Recycle whenever possible.

*Hazardous Materials must comply with the hazardous materials storage and disposal requirements.

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Good Housekeeping Practices

In response to recent Federal and State water quality regulations and requirements, municipalities in Alameda County have joined to form the Alameda Countywide Clean Water Program (ACCWP).

The ACCWP *consists of the Cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, Union City, Alameda County, the Alameda County Flood Control and Water Conservation District, and Zone 7 of the District.*

The Goal of the ACCWP *is to control discharges of pollutants to municipal storm drain systems (and local creeks and the San Francisco Bay). The ACCWP encourages using Best Management Practices to effectively eliminate illegal discharges and connections.*

The Storm Drain System *was built to collect and transport rain to prevent flooding in urban areas. Anything that flows or is discharged into the storm drain system goes directly into local creeks or San Francisco Bay without any treatment.*

The Sanitary Sewer System *collects and transports sanitary wastes from interior building plumbing systems to the wastewater treatment plant where the wastewater is treated.*

Best Management Practices (BMPs) *are methods and practices such as good housekeeping, spill prevention, or treatment measures to prevent or minimize pollutant discharges to municipal storm drain systems.*

Illegal Discharges or Illicit Connections *discharge non-storm water to municipal storm drain systems and contribute to water pollution.*

Urban Runoff *is rain and any other water that passes through and out of developed areas (streets, parking lots, roof tops, etc.) into the storm drain system and eventually to creeks and other waters.*

Keeping pollutants out of our storm drain system protects our local creeks, reservoirs, and the San Francisco Bay. Materials swept, blown, or washed into the storm drains end up in these open waters where they degrade water quality and harm aquatic life. In general, wastewater discharged to the storm drains is illegal.

In addition to reviewing their own practices, municipalities participating in the Alameda Countywide Clean Water Program (ACCWP) have instituted a business education campaign and inspection program. Inspectors work with contractors and businesses to identify and control potential discharge of pollutants to the storm drain system. *Property and business owners are responsible for their contractors' practices.*

Source: Metro, Seattle

Stormwater runoff from industrial and commercial businesses is one of the major contributors to urban runoff pollution. Automotive fluids, paints, solvents, food wastes, grease, pesticides, [illegible] wastes are some of the pollutants that get into the storm drain system.

All businesses can apply good housekeeping practices in their daily activities to reduce or eliminate their contribution to stormwater pollution. The table on the reverse side of this page identifies some of these good housekeeping practices.

If you need additional information concerning stormwater pollution and its prevention contact the Urban Runoff Department (925) 931-5500.

Best Management Practices for Good Housekeeping

Follow these BMPs to control pollutant discharges. The objectives are: 1) to keep pollutants from contacting rain, and 2) to keep pollutants from being dumped or poured into the storm drains. The goal is "only rain in the storm drain."

Activities	Best Management Practices
Pavement Cleaning	• Sweep parking lots and other paved areas periodically to remove debris. Dispose of debris in the garbage. • If outdoor pavement cleaning with detergent is required, collect wash water and dispose in indoor sinks or drains for discharge to the sanitary sewer. Contact your local wastewater treatment agency.
Litter Control	• Provide an adequate number of trash receptacles for your customers and employees. This helps keep trash from overflowing the receptacles. • Pick up litter and other wastes daily from outside areas including storm drain inlet grates.
Waste Disposal*	• Inspect dumpsters and other waste containers periodically. Repair or replace leaky dumpsters and containers. • Cover dumpsters and other waste containers. • Never dispose of waste products in storm drain inlets. • Recycle wastes or dispose properly.
Materials Storage*	• Store materials such as grease, paints, detergents, metals, and raw materials in appropriate, labeled containers. • Make sure all outdoor storage containers have lids, and that the lids are adequately closed. • Store stockpiled materials inside a building, under a roof, or covered with a tarp to prevent contact with rain.
Training	• Train employees regularly on good housekeeping practices. • Assign a person to be responsible for effective implementation of BMPs.
Equipment/Vehicle Cleaning	• Maintain equipment and vehicles regularly. Check for and fix leaks. • Use drip pans to collect leaks or spills during maintenance activities. • Wash equipment/vehicles in a designated and/or covered area where the wash water is collected to be recycled or discharged to the sanitary sewer. Contact your local wastewater treatment agency.

Some Facilities will require structural control BMPs if simpler operation ones are not adequate for keeping pollutant discharges from the storm drains.

* Hazardous materials must comply with hazardous materials storage and disposal requirements.

REFERENCES:
California Industrial/Commercial Best Management Practice Handbook, March 1993
City of Richmond Storm Water Management Program "Your Business and the City of Richmond Partners in Protecting the Bay", 1993
Cities of Fremont, Newark, and Union City, "Source Controls for Storm Water Pollution Prevention", October 1993
ACURCWP "Restaurants" flyer, January 1994
ACURCWP Best Management Practices for Industrial Storm Water Pollution Control, March 1994

Self Inspection Checklist for Business Owners

DIRECTIONS: Complete the following checklist while surveying your facility. If you answer "no" to any of the questions, initiate appropriate best management practice(s) (BMP) to prevent pollutant discharge into the storm drain system. For assistance on BMPs, contact your local stormwater inspector at931-5500.

		Yes	No	N/A
1.	Are **storage containers** including drums, waste dumpsters and/or trash compactors:			
	free from crack/leaks?	☐	☐	☐
	have lids or covers that are kept closed?	☐	☐	☐
	not exposed to rain water?	☐	☐	☐
2.	Are **storage areas** enclosed or covered from the rain?	☐	☐	☐
3.	Are **material processing or handling areas** enclosed or covered from the rain?	☐	☐	☐
4.	Are **parking areas or access roads** free of signs of excessive oil and/or motor fluids, leaks, stains, litter, and sediments?	☐	☐	☐
5.	Are **vehicle repair and maintenance areas** covered or out of the rain?	☐	☐	☐
6.	Are **vehicles and heavy equipment** stored outside, free of leaks and grime?	☐	☐	☐
7.	Are **spills** in fuel or vehicle/equipment maintenance areas prevented from entering the storm drain system?	☐	☐	☐
8.	Are **dry cleaning methods** (for example, sweeping, damp mopping, absorbents) used to clean:			
	shop floors?	☐	☐	☐
	material processing areas?	☐	☐	☐
	material storage areas?	☐	☐	☐
	waste disposal areas?	☐	☐	☐
	access roads?	☐	☐	☐
	parking lots?	☐	☐	☐
9.	Are all **washwater and/or process wastewater** discharged to the sanitary sewer or recycled instead of discharged directly or indirectly to the storm drain system?	☐	☐	☐
10.	Are storm drain **inlets and catch basins** inspected and mechanically cleaned on a regular schedule?	☐	☐	☐
11.	Are waste products from **rooftop equipment** (for example, oil and grease from exposed motors/pumps or other rooftop equipment) not exposed to stormwater runoff?	☐	☐	☐

N/A: Not Applicable

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Building Maintenance and Remodeling

In response to recent Federal and State water quality regulations and requirements, municipalities in Alameda County have joined to form the Alameda Countywide Clean Water Program (ACCWP).

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The Goal of the ACCWP *is to control discharges of pollutants to municipal storm drain systems (and local creeks and the San Francisco Bay). The ACCWP encourages using Best Management Practices to effectively eliminate illegal discharges and connections.*

The Storm Drain System *was built to collect and transport rain to prevent flooding in urban areas. Anything that flows or is discharged into the storm drain system goes directly into local creeks or San Francisco Bay without any treatment.*

The Sanitary Sewer System *collects and transports sanitary wastes from interior building plumbing systems to the wastewater treatment plant where the wastewater is treated.*

Best Management Practices (BMPs) *are methods and practices such as good housekeeping, spill prevention, or treatment measures to prevent or minimize pollutant discharges to municipal storm drain systems.*

Illegal Discharges or Illicit Connections *discharge non-storm water to municipal storm drain systems and contribute to water pollution.*

Urban Runoff *is rain and any other water that passes through and out of developed areas (streets, parking lots, roof tops, etc.) into the storm drain system and eventually to creeks and other waters.*

Keeping pollutants out of our storm drain system protects our local creeks, reservoirs, and the San Francisco Bay. Materials swept, blown, or washed into the storm drains end up in these open waters where they degrade water quality and harm aquatic life. In general, wastewater discharged to the storm drains is illegal.

In addition to reviewing their own practices, municipalities participating in the Alameda Countywide Clean Water Program (ACCWP) have instituted a business education campaign and inspection program. Inspectors work with contractors and businesses to identify and control potential discharge of pollutants to the storm drain system. *Property and business owners are responsible for their contractors' practices.*

Construction sites, even small scale projects such as maintenance work or building remodeling, are sources of stormwater pollution. Materials and wastes that reach a storm drain, gutter, or street have a direct impact on local creeks and the Bay. As a contractor, supervisor of a construction site, permitee, owner, or facility operator, you are responsible for any environmental impact caused by the people working on your site.

All construction contractors can apply common sense practices to minimize or eliminate their contribution to stormwater pollution. The table on the reverse side of this page identifies activities to control or eliminate pollutant discharges.

If you need additional information concerning stormwater pollution and its prevention contact the Urban Runoff Division (925) 931-5500.

Best Management Practices

Follow these BMPs to control pollutant discharges. The objectives are: 1) to keep pollutants from contacting rain, and 2) to keep pollutants from being dumped or poured into the storm drains. The goal is "only rain in the storm drain."

Activities	Best Management Practices
General Practices	• Store materials under cover, protected from rainfall and runoff. • Use tarps on the ground to collect fallen debris or splatters. • Secure bags of cement after they are opened. Keep wind-blown cement powder away from gutters, storm drains, and rainfall. • Pick up litter and other wastes daily from outside areas including storm drain inlet grates. • Avoid outdoor work during wet or windy weather.
Materials/Waste Handling*	• Order and mix only the amount of materials you will need. • Use recyclable materials whenever possible. • Dispose of all wastes properly. Recycle whenever possible. Dispose of small amounts of dry concrete, grout, and mortar in the trash. • Liquid residues from oil-based paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes*. • Never bury waste materials. Never leave waste material in the street, gutter, or near a creek or stream bed.
Spills	• Clean up leaks, drips and other spills immediately so that they do not contaminate soil or groundwater or leave residue on paved surfaces. • Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags), or dig up and remove contaminated soil.*
Washing/Cleanup	• Contain, collect, and filter washwater from concrete operations. Discharge washwater to the sanitary sewer (contact the your local wastewater treatment agency). Dispose of filtered particles in trash. • Wash concrete mixers out in designated wash-out areas in your company's yard, where the water will flow into containment ponds or onto dirt. At the construction site, recycle washout by pumping back into mixers for reuse; recycle or properly dispose of concrete remaining in chute. Never dispose of washout into the street, storm drains, drainage ditches, or streams. • When stripping or cleaning building exteriors with high-pressure water, block storm drains. Collect the water for disposal to the sanitary sewer (contact your local wastewater treatment agency). • For water-based paints, first paint out brushes as much as possible, then rinse in a sink. Empty cans, rags, and brushes used with water-based paints can be disposed of in the trash. • For oil-based paints, first paint out brushes as much as possible, then filter and reuse thinners and solvents. Dispose of excess liquids and residue as hazardous waste.* • Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.

*Hazardous Materials must comply with hazardous materials storage and disposal requirements.

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Stormwater Best Management Practices for Supermarkets and Grocery Stores

In Alameda County, all storm drains flow directly to creeks and the San Francisco Bay with no treatment. In response to federal and state regulations and requirements, the municipalities in Alameda County have joined to form the Alameda Countywide Clean Water Program (ACCWP). The ACCWP has launched a public education campaign and inspection program. Recent stormwater inspections at supermarkets and grocery stores have identified stormwater quality problems common countywide. The ACCWP has adopted the following best management practices, or BMPs, which will help supermarkets and grocery stores reduce their contribution to water pollution. These BMPs have been adopted at a countywide level to promote consistency.

I. Dumpsters and Compactors

Impacts to Stormwater:

- Leaks from liquid wastes or rainwater in the dumpsters, and hydraulic fluids from compactors flow to the gutter, storm drains, or creeks
- Litter, waste, and garbage are left on the ground to wash away with rainwater to the gutter, storm drains, or creeks

BMPs:

- Minimize the amount of liquid placed in dumpsters or compactors. For example, drain liquid food wastes to the sanitary sewer and place only the <u>empty</u> container in the dumpster or compactor. Or use a screen or colander to remove solids from liquid waste; liquid wastes goes to the sanitary sewer, and solid wastes go to the trash.
- Keep dumpster lids closed to keep out rainwater.

- Route leaks and other wastewaters from dumpsters and compactors to the sanitary sewer system. See additional guidelines for routing wastewaters to the sanitary sewer.
- Control litter. Make sure waste is contained in dumpsters and compactors. Sweep dumpster and compactor area regularly.
- Inspect dumpsters and compactors regularly for leaks or stains (at least once a month).
  Inspect dumpster and compactor area for litter regularly (at least once a week).
- Immediately replace leaking dumpsters and compactors.

II. Cleaning and Washing Activities

Impacts to Stormwater:

- Washwaters laden with soap, dirt, grease, oil, and other pollutants are dumped or allowed to flow to the gutter, storm drains, or creeks

BMPs:

- Clean equipment (including carts, floor mats, garbage cans, and tray racks) in a designated wash area that allows ***no*** discharge to the storm drains.
  - ◊ If the designated wash area is outdoors, collect and pump the washwater to the sanitary sewer. See additional guidance for collecting washwaters.
  - ◊ Temporary cleaning areas must be adequate to contain all washwaters. The temporary cleaning area is inadequate if washwater reaches gutters, storm drains, or creeks.
- Discharge washwaters to the sanitary sewer system when cleaning flat surfaces only (e.g., loading dock, store, windows, parking areas, driveways, etc.). Minimize the amount of washwater used.
  - ◊ Sweep the area before washing.
  - ◊ If wet cleaning is required, block the storm drain or contain all washwaters, and discharge to the sanitary sewer system. See additional guidance for collecting washwaters.
  - ◊ If **no soap** is used, washwaters from the following types of surfaces may be discharged to landscaping or the storm drains after the washwater has been

screened to catch debris. When screening washwater, pass the water through a "20 mesh" or finer screen to catch the material. Dispose of the captured material in the trash.

- sidewalks, plazas
- building surfaces, decks, etc. without loose paint

Remember that your facility is responsible for the behavior of contractors you hire. Ask your contractor if they have received training for surface cleaners from the Bay Area Stormwater Management Association of Agencies (BASMAA). Be sure you know how your contractor will be cleaning your equipment and disposing of washwater. ***Discharging washwaters with soap or any other type of pollutant to the storm drains is illegal!***

III. Maintenance Practices

Impacts to Stormwater:

- Oil, hydraulic fluids, grease, coolant, and other fluid deposits on the ground from storage or maintenance of heavy equipment (e.g., fork lifts, vehicle equipment, refrigerator units, etc.) can wash away with rainwater to the gutter, storm drains, or creeks

BMPs:

- Maintain equipment regularly. Check for leaks or stains. Fix leaks.
- Capture leaks and drips during maintenance activities with a drip pan.
- If equipment is stored outdoors, store equipment under a roof or tarp during rain.

IV. **Spill Control**

Impacts to Stormwater:

- Waste foods and garbage dumped, washed, or allowed to flow to the gutter, storm drains, or creeks
- Spillage from grease bins allowed to flow or wash away with rain to the gutter, storm drains, or creeks

BMPs:

- Dispose of waste food and garbage in the dumpster or compactor.
- Be prepared for spills:
  - ◊ Develop spill procedures for different types of spills (e.g., garbage, liquid food wastes, fuel etc.).
  - ◊ Train employees on cleanup procedures.
  - ◊ Keep cleanup kits in well-marked, easily accessible areas.
- If you mop up a spill, dispose of mop/washwater appropriately in indoor sinks for discharge to the sanitary sewer.

V. **Additional Guidance**

A. Routing Leaks And Other Wastewaters To The Sanitary Sewer System:

Our shared goal is to work toward only clean rainwater entering the storm drains. However, inspectors of the ACCWP agencies understand that some facilities cannot simply eliminate a non-stormwater discharge or transfer the discharge to the sanitary sewer without significant capital investment. In such cases, the following options describe an incremental approach that would give these facilities a window to comply and develop solutions to eliminate the discharge.

Best Option: Route wastewater to a sanitary connection:

- ◊ Minimize the amount of rainwater run on if you discharge the liquid to a floor drain connected to the sanitary sewer in an uncovered area (e.g., by berming, grading, or using a close out valve).
- ◊ Contact the local wastewater treatment agency if you are installing a new connection to the sanitary sewer or need assistance with locating an existing connection. Sanitary connections are subject to the review, approval, and conditions (e.g., pretreatment requirements, monitoring, fees, etc.) of the wastewater treatment agency receiving the discharge.

Acceptable Option: Install a berm around the dumpster or compactor. Pump wastewater to a sanitary connection (e.g. clean out, or sink). Establish a regular schedule and person responsible for inspecting and pumping the bermed area.

Acceptable Option: Place a drip pan under dumpster, compactor, or hydraulic unit leaks. Empty the pan into a sink or toilet. Establish a regular schedule and person responsible for inspecting and emptying the collection container.

The Alameda Countywide Clean Water Program has adopted this incremental approach as an option only when eliminating or routing the non-stormwater discharge to the sanitary sewer is not immediately feasible, with the understanding that all non-stormwater discharges to the storm drain will be eliminated within a reasonable period. *A reasonable period for such structural/treatment controls is one to twelve months, depending on the severity of the pollutant impact and the physical logistics and cost of construction.*

B. Collecting Washwaters:

The best place to clean equipment is a wash pad with a sanitary sewer connection. If your facility does not have a wash pad, you can still create a designated wash area that prevents washwater from discharging to the storm drains.

1. Create a collection area with booms or take advantage of a low spot to keep washwater contained.
2. Block flow to storm drains with an impervious barrier such as sandbags or booms, OR
   Seal the storm drain with plugs or rubber mats.
3. Pump collected washwater to the sanitary sewer (e.g., sink or sewer cleanout).

When washing large areas, it is important to recognize the grading and identify how water will flow in the area. A low spot is a natural location to collect

washwaters. A low spot outdoors usually also contains a storm drain inlet to prevent flooding during rains. Once you have identified what storm drains will be impacted by the cleaning, follow ***all three*** steps:

- ◊ Dry sweep or vacuum all litter, debris, or saturated absorbent. Use absorbents (such as rags, absorbent mats or pads, rice hull ash, cat litter, vermiculite, or sand) to pick up greasy or oily spills.
- ◊ Block flow to storm drains with an impervious barrier such as sandbags, rubber mats, or booms, OR
  seal the storm drain with plugs or rubber mats.
- ◊ Pump the collected washwater to landscaping, or a sewer cleanout, or a container for later disposal to the sanitary sewer.

Contact the local wastewater treatment agency if you are installing a new connection to the sanitary sewer or need assistance with locating an existing connection. Sanitary connections are subject to the review, approval, and conditions (e.g., pretreatment requirements, monitoring, fees, etc.) of the wastewater treatment agency receiving the discharge.

THE CITY OF PLEASANTON

Guidelines for the Disposal of Swimming Pool, Spa, and Fountain Water

This informational flier is written to answer questions and provide guidance for residents or swimming pool, spa, or fountain maintenance contractor to help them dispose of water from swimming pools, spas or fountains in an environmentally acceptable manner.

When water from swimming pools, spas, and fountains is directed or pumped into the City's gutters or streets, it flows into the City's storm drainage system that empties directly to our local creeks, canals, arroyos, and eventually to the San Francisco Bay with **no treatment**. As a result, the City is required, through discharge permits with regional water quality control agencies, to control and manage the water quality that flows into our storm drainage system so that pollutants flowing to local waterways and into the San Francisco Bay are minimized or eliminated.

Water in swimming pools, spas & fountains are mixed with chemicals such as: chlorine for removing harmful bacteria, copper algaecides for preventing algae growth, and other chemicals used to manage the water chemistry within these recreational/aesthetic uses. Although these chemicals are used to ensure the owners' safety & for aesthetic reasons; the same chemicals can be very harmful if they come in contact with habitat and plant species living in or adjacent to our local creeks and waterways, and eventually, in the San Francisco Bay.

Owners of residential swimming pools, spa, and fountains, or their maintenance contractor, planning to dispose of the water coming from these areas, can help by following the best management practices as follows:

Disposing of Swimming Pool, Spa, or Fountain Water:

Alternative I: The preferred alternative to discharge water from pools, spas, and fountains is through the residence's sanitary (wastewater) sewer system. The first method to accomplish this would be by pumping the water into a bathtub or nearby kitchen sink, and allow it to discharge through the drain. Bathtubs or kitchen sinks provide a detention area, and help minimize the possibility of flooding your home.

The second method is by pumping the water into the homes sanitary system cleanout (usually found in the outside wall close to the kitchen sink). Care and monitoring should be taken with these options, due to high volume of pumped water overflowing and causing flooding in your home.

Alternative II: Water from swimming pools, spas, and fountains can be discharged to the City street gutters or storm drainage systems ***only*** after ***all*** of the following steps are implemented (Municipal Code 9.14):

- ✓ Water has been **de-chlorinated**. De-chlorination kits are available at most pool and spa accessory shops prior to disposal.

- ✓ Water is at or close to ambient (outside) temperature. Heated water should be allowed to cool to air/outside temperature.

- ✓ No copper-based algae control products have been added to the water. Water containing copper based products is required to be discharged to the sanitary sewer system, as explained in Alternate I above.

De-chlorinated water can be discharged to a lawn area, or at a minimum, run across a lawn area, to further remove pollutants before the water reaches the street.

Disposing of Pool, Spa or Fountain Filter Rinse and/or Back Wash Water:

Water utilized for cleansing sand media or cartridge filters may be released in the soil or a sanitary sewer connection. Backwash water from filters should also not be discharged into the gutter, storm drains, or creeks.

The following method should be followed for cleaning filters:

- ✓ Clean the filter in a wash area that drains into the sanitary sewer (see Alternate I above). You may also wash the filter in a bathtub that is connected to the sanitary sewer system.

Diatomaceous earth filters may not be backwashed directly into the sanitary sewer system, and should be spread in landscaped areas.

The manner that homeowners and their maintenance contractor use to dispose of water from swimming pools; spas and fountains can make a significant difference in the water quality flowing to our local creeks, streams, waterways and eventually to the San Francisco Bay. Remember, property owners are also responsible for the practices of their maintenance contractors. Be sure to ask your maintenance contractor about the method they plan to use for disposing of the water (or filter cleaning) that comes from cleaning your pool, spa or fountain before they start the process.

Further Information: Call Pleasanton's Urban Runoff Division at (925) 931-5500

June 2003

THE CITY OF PLEASANTON

Mobile Cleaners

In response to recent Federal and State water quality regulations and requirements, municipalities in Alameda County have joined to form the Alameda Countywide Clean Water Program (ACCWP).

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The Sanitary Sewer System *collects and transports sanitary wastes from interior building plumbing systems to the wastewater treatment plant where the wastewater is treated.*

Best Management Practices (BMPs) *are methods and practices such as good housekeeping, spill prevention, or treatment measures to prevent or minimize pollutant discharges to municipal storm drain systems.*

Illegal Discharges or Illicit Connections *discharge non-storm water to municipal storm drain systems and contribute to water pollution.*

Urban Runoff *is rain and any other water that passes through and out of developed areas (streets, parking lots, roof tops, etc.) into the storm drain system and eventually to creeks and other waters.*

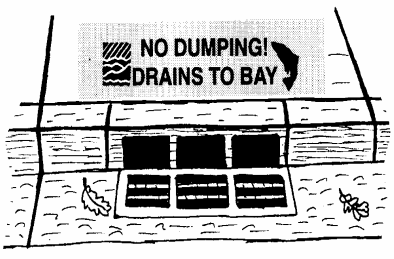
Keeping pollutants out of our storm drain system protects our local creeks, reservoirs, and San Francisco Bay. Materials swept, blown, or washed into the storm drains end up in these open waters where they degrade water quality and harm aquatic life. In general, washwater discharged to the storm drains is illegal. A few exceptions as described in the following table, are allowed to discharge when there are no pollutants.

In addition to reviewing their own practices, municipalities participating in the Alameda Countywide Clean Water Program (ACCWP) have instituted a business education campaign and inspection program. Inspectors work with contractors and businesses to identify and control potential discharge of pollutants to the storm drain system. *Property and business owners are responsible for their contractors' practices.*

Mobile cleaning activities generate significant quantities of washwater as a result of their washing operations at various sites. Washwater can contain dirt, debris, soap, oil, grease, acid solution, solvents, paint chips, metals, and/or food waste. Washwater discharged to the storm drain system contributes to urban runoff pollution. Even “biodegradable” cleaning agents may cause immediate damage to aquatic ecosystems.

All contractors and individuals who perform cleaning operations can apply common sense practices to minimize or eliminate their contribution to stormwater pollution. Some such practices are identified on the following pages.

If you need additional information concerning stormwater pollution and its prevention, contact the Urban Runoff Division (925) 931-5500.



Best Management Practices for Food-Related Cleaning Activities

The goal: "Only rain in the storm drain."
The strategy: Keep pollutants from 1) contacting rain and; 2) being dumped, blown, swept, washed, or poured into storm drains.

Category/Activity	Washing or Washwater Conditions	Discharge Options			Best Management Practices (In Order of Preference)
		Storm Drains	Sanitary Sewer (1)	Landscaping/ Dirt Area (2)	
Restaurant Alleys, Grocery Dumpster Areas (outdoors)		NO	YES	NO	Best: dry clean only (using rags, absorbents, sweeping debris). 2nd: dry clean first, seal storm drain, wash area, screen out particles, discharge washwater to sanitary sewer.
Restaurant Cleaning of Floor mats, Exhaust Filters, Etc.		NO	YES	NO	Washing mats outdoors and discharging washwater to storm drains is prohibited. Best: clean mats inside building and discharge to sink or floor drain. 2nd: clean mats outside in bermed area; discharge washwater to sanitary sewer.
Kitchen Grease	Recyclable oil, grease and meat fat	NO	NO	NO	Save for recycling in sealed containers; never pour into sink, floor or storm drain; do not mix with waste grease from trap.
	Grease from interceptor or trap	NO	NO	NO	Never dispose of waste grease in storm drain or sanitary sewer; contact disposal company.
Grocery Carts	Using soap	NO	YES	NO	Capture washwater; filter particles; discharge to sanitary sewer.
	No soap	YES	YES	See note 2	Pick up litter. Best: capture washwater; filter particles; discharge to sanitary sewer. 2nd: discharge to storm drains through filter barrier (boom); hot water discharge to creek is prohibited.
Lunch Wagons/Food Carts		NO	YES	NO	Equipment should be cleaned on wash pad at commissary equipped to discharge washwater to sanitary sewer. Contact County Health. Only melted ice may drain to storm drain.

(1) "Discharge to sanitary sewer" means discharge into sink, toilet, or sanitary system cleanout. Approval of the wastewater agency is needed and may require compliance with local regulations or limits; initial sampling; installation of pre-treatment equipment; payment of connection fee; and/or obtaining a wastewater discharge permit.

(2) This option applies to minimal discharge flows only. Repetitive use or excessive waste volume to the same area may contribute to soil or contamination. Washwater may adversely affect landscaping; discuss with building owner.

Best Management Practices for Mobile Cleaning Activities

The goal: "Only rain in the storm drain."
The strategy: Keep pollutants from 1) contacting rain and; 2) being dumped, blown, swept, washed, or poured into storm drains.

Category/Activity	Washing or Washwater Conditions	Discharge Options			Best Management Practices (In Order of Preference)
		Storm Drains	Sanitary Sewer (1)	Landscaping/ Dirt Area (2)	
I. TRANSPORTATION-RELATED WASHING					
Fleet Washing (Exterior)	Removing mainly dirt: with or without soap	NO	YES	See note 2	Best: use wash pads to capture washwater; discharge to sanitary sewer. 2nd: seal storm drains; collect washwater; discharge to sanitary sewer or dirt. (3)
Engine/Equipment Degreasing (Airplane, Auto, Truck)	With or without soap; may contain petroleum products and metals	NO	YES (Pretreat-ment rqd.)	NO	Use wash pads to capture washwater; drain/pump through pretreatment system before discharge to sanitary sewer (discuss requirements with wastewater agency).
Acid Cleaning of Unpainted Trucks/Metal Containers	Typically contains acid detergents	NO	YES (Pretreat-ment rqd.)	NO	Use wash pads to capture washwater; neutralize to pH between 6 and 10; discharge to sanitary sewer; contact wastewater agency for approval.
Mobile Auto Detailing	Infrequent, light cleaning; minimum water volume; removing mainly dirt with soap	NO	YES	See note 2	Best: small volume may remain on paved surface to evaporate; if significant flow, seal storm drain and discharge to sanitary sewer. 2nd: direct flow onto dirt area.
Car Sales Lot Rinsing for Dust Removal	Light dirt, no soap or solvents	See note 4	YES	See note 2	OK to discharge to storm drain; keep runoff away from oil deposits.
Semi Trailers and Boats (Truck trailer, interior cleaning)	Food-related debris	NO	YES	NO	Sweep, collect and dispose of food residue in garbage; use dry cleaning methods; avoid hosing down trailer; discharge any washwater to sanitary sewer
	Trailer contained toxic substances	NO	NO	NO	If toxic materials spilled in trailer, use dry cleaning methods only – do not hose down; protect storm drains; contact Fire Department for guidance.
	Boat cleaning (including removal of paint chips)	NO	YES (Pretreat-ment rqd.)	NO	Filter washwater before discharge; dispose of paint particles properly (in garbage or as hazardous waste if contain lead, copper, TBT, or PCBs).
II. SURFACE CLEANING (5)					
Sidewalks and Plazas	Using Soap, no oil deposits	NO	YES	See note 2	Sweep, collect and dispose of debris; direct discharge to sewer.
	No soap or oil deposits	YES	YES	See note 2	Sweep, collect and dispose of debris; may flow to storm drains.
Sidewalks, Plazas, Driveways, Drive-Through Window Areas	No soap, light oil, frequently cleaned	NO	YES	See note 2	Sweep, collect and dispose of debris; dry clean oil spots, dispose of absorbent in trash; place oil-absorbent boom around storm drain.
Drive-Throughs, Drive-ways, Parking Garages, Service Stations	With or without soap; excess oil deposits; not frequently cleaned	NO	YES	NO	Seal storm drains; sweep, collect and dispose of debris; dry clean oil spots, dispose of absorbent legally; discharge washwater to sanitary sewer, via oil/ water separator if possible. Discuss with site operator and wastewater agency.

Category/Activity	Washing or Washwater Conditions	Discharge Options			Best Management Practices (In Order of Preference)
		Storm Drains	Sanitary Sewer (1)	Landscaping/ Dirt Area (2)	
II. SURFACE CLEANING (continued)					
Building Exteriors and Walls	Glass and steel buildings, no soap	YES	YES	See note 2	Best: direct washwater to dirt area. 2nd: direct flow to storm drain; protect drain with fabric filter if possible.
	Painted buildings (paint known to be lead free), no soap	YES	YES	See note 2	Best: direct washwater to dirt area. 2nd: protect drain with fabric filter to keep paint particles out of storm drain.
	Painted buildings with lead-based or mercury-additive paint, including cleaning for paint removal	NO	NO	NO	Seal storm drains and pump wash-water to a tank; water and sludge may need to be disposed of as hazardous waste. Consult with wastewater agency, County Health and Fire Department.
Graffiti Removal	Using wet sand blasting (with no baking soda)	YES	YES	See note 2	Minimize quantity of water used. Best: direct washwater to dirt area. 2nd: filter through boom to keep sand out of storm drain or sewer.
	Using high pressure washing and cleaning compound	NO	YES	See note 6	Best: seal storm drains; discharge washwater to sanitary sewer. Discuss with site operator and wastewater agency. 2nd: direct washwater to dirt area.
Masonry Efflorescence	Using acid wash to remove mineral deposits	NO	YES	YES	Seal/block storm drains. Collect washwater, neutralize to pH 6 to 10, discharge to sanitary sewer.
III. FOOD RELATED CLEANING					
Restaurant Alleys, Grocery Dumpster Areas (outdoors)		NO	YES	NO	Best: dry clean only (using rags, absorbents, sweeping debris). 2nd: dry clean first, seal storm drain, wash area, screen out particles, discharge washwater to sanitary sewer.
Restaurant Cleaning of Floor mats, Exhaust Filters, Etc.		NO	YES	NO	Washing mats outdoors and discharging washwater to storm drains is prohibited. Best: clean mats inside building and discharge to sink or floor drain. 2nd: clean mats outside in bermed area; discharge washwater to sanitary sewer.
Kitchen Grease	Recyclable oil, grease and meat fat	NO	NO	NO	Save for recycling in sealed containers; never pour into sink, floor or storm drain; do not mix with waste grease from trap.
	Grease from interceptor or trap	NO	NO	NO	Never dispose of waste grease in storm drain or sanitary sewer; contact disposal company.
Grocery Carts	Using soap	NO	YES	NO	Capture washwater; filter particles; discharge to sanitary sewer.
	No soap	YES	YES	See note 2	Pick up litter. Best: capture washwater; filter particles; discharge to sanitary sewer. 2nd: discharge to storm drains through filter barrier (boom); hot water discharge to creek is prohibited.

Category/Activity	Washing or Washwater Conditions	Discharge Options			Best Management Practices (In Order of Preference)
		Storm Drains	Sanitary Sewer (1)	Landscaping/ Dirt Area (2)	
III. FOOD RELATED CLEANING (continued)					
Lunch Wagons/Food Carts		NO	YES	NO	Equipment should be cleaned on wash pad at commissary equipped to discharge washwater to sanitary sewer. Contact County Health. Only melted ice may drain to storm drain.
IV. MISCELLANEOUS CLEANING ACTIVITIES					
Mobile Homes, Decks, Roofs, Shingles, Awnings, Residential/ Commercial Pool Decks (with paint known to be lead free)	Using Soap	NO	YES	See note 2	Direct washwater to dirt area or to sanitary sewer.
	No Soap	See note 7	YES	See note 2	Best: discharge to dirt area. 2nd: discharge to storm drain through filter barrier (boom).

Area	Wastewater Agency
Cities of Dublin or Pleasanton	Dublin-San Ramon Services District: 925/846-4565
City of Livermore	925/373-5230

(1) "Discharge to sanitary sewer" means discharge into sink, toilet, or sanitary system cleanout. Approval of the wastewater agency is needed and may require: compliance with local regulations or limits; initial sampling; installation of pre-treatment equipment; payment of connection fee; and/or obtaining a wastewater discharge permit.

(2) This option applies to minimal discharge flows only. Repetitive use or excessive waste volume to the same area may contribute to soil and contamination. Washwater may adversely affect landscaping; discuss with building owner.

(3) If a significant amount of washwater evaporates from a paved surface at a site used routinely for washing, the paved area itself must be washed (and the washwater discharged to the sanitary sewer) either before October 15 (beginning of the rainy season) or at the end of the contract.

(4) Permitted only for low flow volume, minimal discharge. Only exterior body cleaning; no cleaning the undercarriage or under the hood.

(5) BMPs in this category do not apply if there has been an oil or other hazardous material spill on the site. In the case of a spill, contact the local fire department for guidance.

(6) Washwater with cleaning compound may adversely affect landscaping; discuss with building owner.

(7) Wood shingles may have been treated with a toxic material and should be dry cleaned only. Runoff from cleaning may be toxic to plants in a landscaped area. Washwater must be known to contain no toxic materials before discharge to the stormdrains is permitted.

Reducing Mercury Pollution

Universal Waste Rule (UWR)
Universal wastes (u wastes) include products with mercury and other widely used polluting substances that have a more significant, detrimental impact on the environment than typical waste materials, but are not as dangerous and risky to handle as hazardous wastes. The Universal Waste Rule (CA Code of Regulations, Title 22, Division 4.5, Chapter 23) refers to the special requirements for handling, transporting and disposing of these wastes.

Small Businesses
Regardless of how small your business or how little hazardous and u wastes it generates, ***since February 2006*** it must comply with the State of California's ***new*** UWR for handling fluorescent lamps and other products that contain mercury. Your business ***must either recycle universal wastes or dispose of them as a hazardous waste.*** Universal waste cannot be dumped in the trash or garbage containers.

Mercury Products

Most of the products listed below are subject to the Universal Waste Rule.

Lamps - Fluorescent lamps (Straight, U-shaped, compact, others), High Intensity Discharge Lamps, Mercury Vapor, Metal Halide, High Pressure Sodium and Neon Signs.

Thermometers, Thermostats, Dental Amalgams, Mercury Batteries, Novelties, and Rubber Flooring in some older gymnasiums.

Switches and Relays – used in automobiles to turn on car hood/trunk lights, anti-lock brakes and airbags; used to activate alarms, motion sensing lights, sump and bilge pumps; and to stop clothes washer spin cycle.

Pressure or Vacuum Gauges - Manometers Barometers, Sphygmomanometers. Primarily used for medical and scientific purposes.

Gas Flow Regulators, Thermostat Probes/Flame Sensors/Gas Safety Valves used to stop or open flow of gas to water heaters, ovens, space heaters and other appliances.

Dilators and Weighted Tubing – Bougie tubes, Canter tubes used in medical procedures.

Counterweights and Dampers - Bow stabilizers for archery, recoil suppressors for shotguns and counterweights for clocks.

September 28, 2004 (Revised March 2006)

Proper Handling and Disposal of Fluorescent Lamps

The goal of the Alameda Countywide Clean Water Program (**ACCWP**) is to control discharges of pollutants to municipal storm drain systems and local creeks and the San Francisco Bay.

Municipalities participating in the ACCWP have instituted a business education campaign and inspection program. The ACCWP recommends that businesses *recycle mercury waste, use non- or low-mercury alternatives, and control potential releases of mercury through good business practices.* The tables on the reverse side of this page provide additional information for businesses that generate mercury lamp waste. Property and business owners are responsible for their contractors' practices.

Mercury enters the **environment** through landfill leaching, wastewater treatment facilities or as atmospheric deposition. As atmospheric deposition, mercury mixes with rain and then falls into the Bay and other waterways. According to State water quality officials, in the Bay Area, residents and businesses dispose of approximately 13 million **fluorescent lamps** in landfills each year and cause the release of an estimated 22 -290 lbs./yr of mercury vapor into the atmosphere of the San Francisco Bay Region from crushed and broken lamps.

Health Impacts
Bacteria convert mercury into methyl mercury. Methyl mercury contaminates the food chain and can build up in the tissue of fish and wildlife and finally in humans through the fish we eat. Mercury causes damage to the human brain, spinal cord, kidney and liver. It is especially dangerous during fetal development and to small children.

If you need additional information concerning stormwater pollution and its prevention contact your local program representatives at **(925) 931-5500**.

THE CITY OF PLEASANTON

Alameda Countywide
Clean Water Program
A Consortium of Local Agencies

Alternatives - Low Mercury Fluorescent Lamps

Fluorescent lamps make sense from both an environmental and economic standpoint. Energy consumption of fluorescent bulbs is 50% of standard incandescent lamps and, on average, they last ten times longer. Even though these lamps contain reduced levels of mercury they still must be handled as u wastes.

DO use ***low-mercury alternatives*** with up to 80% less mercury than standard fluorescent lamps.

Philips' "Alto," General Electric's "Ecolux," and Sylvania's "Ecologic" are examples of such products.

Where to Recycle

Recycling costs less and has less government paperwork than hazardous waste disposal.

AERC Recycling Services
Hayward, California
(800) 628-3675, (510) 429-1129
www.aerc-mti.com/

Earth Protection Services Inc.
Ontario, CA
(800) 414-0443
www.earthpro.com/

Lighting Resources Inc.
Ontario, CA
(800) 572-9253
www.lightingresourcesinc.com/

Best Management Practices for Mercury Lamp Waste

Storage

- Store used lamps in impact resistant containers designed to prevent breakage or place containers in sturdy double containers and store in a dry place. Two sources of containers are the manufacturer's box and mercury recycling companies. Packing material around the lamps in addition to the container is not required. A container with no evidence of leakage, damage or spills need not be airtight.
- Label or mark containers "Universal Waste - Lamps" or "Waste Lamps" or "Used Lamps" (CA Universal Waste Rule). Individual recycling companies may want the word mercury included.
- Containers of used lamps should show no evidence of leakage. Lamps showing evidence of leakage, spillage or damage must be placed in a plastic bag and then placed in the container.
- Waste lamps should not be kept for over a year or they may be subject to additional regulatory oversight and paperwork.

Spill Cleanup

- If lamps break, clean up immediately, store broken lamp pieces as well as any spilled powder in a sealed plastic bag, then place in a sealed drum or other closed, structurally sound container. Recycle/dispose of according to uniform waste rules (see below).

Shipping/Documentation (for waste sent to certified recyclers)

- Keep invoices, bills of lading, logs or other shipping records for three years. Record should indicate shipping date, name/address of shipping origination or destination, and number of lamps.
- Waste can be shipped to the appropriate recycling location using a common carrier. A bill of lading is required to transport lamp waste *to a recycling center*, but a Uniform Hazardous Waste Manifest is not required and other Hazardous Waste requirements do not apply.

Waste Disposal and Recycling

Preferred Option:

- Recycle at an authorized facility. See list of businesses above.

Second Option (availability limited to businesses that generate small quantities):

- Alameda County Household Hazardous Waste at (800) 606-6606 accepts mercury lamps for a small fee. Call for details and to make an appointment for disposal.

For further information on Universal Waste Regulations call Department of Toxic Substances Control at (510) 540-3739.

Maintaining Swimming Pools, Spas, and Fountains

Swimming pools provide beauty to your back yard, provides hours of enjoyment as well as adding value to your home.
However the choices you make in maintaining your pool could lead to toxic environmental consequences

Disposing of pool, spa, and fountain water

- It is preferred to dispose of pool, spa, and fountain water to the sanitary sewer system, but may be discharged to the storm drainage system only if **all the following conditions are met:**

    1. The water has been dechlorinated. (don't add chemicals until no residual remains)
    2. The water is within ambient temperature. (turn heater off)
    3. No copper based algae control products have been used to maintain the water.

    If drained to the storm drainage system preference is to drain across your landscape (lawn area) before it enters the street. If it is safe for your lawn it should be safe for the creeks.

Disposing of filter rinse water

- If you have a cartridge type filter these should be cleaned in a wash sink if available, if a sink is not available the filter should be cleaned on a landscaped area where the water will not run into the street.

For diatomaceous earth (DE) filters, ensure that the DE is captured prior to discharge. The DE should never enter the storm drain system as it is hazardous to the beneficial waterborne insects.

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What is Diatomaceous Earth?

Is a substance made up from crushed fossils of freshwater organisms and marine life. Crushed to a fine powder and observed through a microscope, the particles resemble bits of broken glass. The microscopically sharp edges contact the insect or parasite, and pierce their protective coating, so they soon dehydrate and die. The larvae is affected in the same way.